

Title (en)
Differential gear apparatus

Title (de)
Differential

Title (fr)
Appareil différentiel

Publication
EP 1686287 A2 20060802 (EN)

Application
EP 06100875 A 20060126

Priority
• JP 2005018174 A 20050126
• JP 2005064533 A 20050308

Abstract (en)

A differential gear apparatus according to the present invention comprises a first sun gear (3) coupled to a first shaft (1) to be rotated in conjunction with the first shaft (1), a second sun gear (4) coupled to a second shaft (2) to be rotated in conjunction with the second shaft (2), a first planetary gear (5) meshed with the first sun gear (3), a second planetary gear (6) rotated with the first planetary gear (5) and meshed with the second sun gear (4), a carrier (7) supporting the first and second planetary gears (5, 6), and a housing supporting the second shaft (2) upon rotation, wherein the sun gears (3, 4) and the planetary gears (5, 6) have profile shifted teeth of which addendum modifications are different at the positions in a flank width direction and a nut (19) screwed on the mid way of the second shaft (2), and a through hole (9a) disposed at a position facing the nut (19) are provided.

IPC 8 full level
F16H 1/28 (2006.01); **B62D 5/00** (2006.01); **F16H 35/00** (2006.01)

CPC (source: EP US)
B62D 5/008 (2013.01 - EP US); **F16H 1/2863** (2013.01 - EP US); **F16H 57/12** (2013.01 - EP US); **F16H 3/724** (2013.01 - EP US);
F16H 57/082 (2013.01 - EP US); **F16H 2057/128** (2013.01 - EP US)

Citation (applicant)
JP S61122071 A 19860610 - MAZDA MOTOR

Cited by
EP1903254A1; DE102007005148A1; US7699136B2

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IS IT LI LT LU LV MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 1686287 A2 20060802; EP 1686287 A3 20100106; US 2006166771 A1 20060727; US 7479089 B2 20090120

DOCDB simple family (application)
EP 06100875 A 20060126; US 33976006 A 20060124